THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A method of determining oxidative stress in a mammalian subject comprising:

   a. obtaining a sample of a biological fluid from the subject;

   b. mixing the biological fluid with a ferrous reaction reagent;

   c. incubating the biological fluid and the reaction reagent; and

   d. detecting a coloured reaction product.

2. The method of claim 1 wherein the reaction reagent comprises a solution of 2-deoxyglucose, TBA, EDTA and ferrous sulphate.

3. The method of claim 2 wherein the reaction reagent is substantially free of ascorbic acid.

4. The method of claim 2 wherein the reaction reagent comprises 2-deoxyglucose in a concentration of between about 30 and 400 mM.

5. The method of claim 2 wherein the reaction reagent comprises 2-deoxyglucose in a concentration of between about 75 and 150 mM.

6. The method of claim 2 wherein the reaction reagent comprises TBA in

a concentration of between about 10 and 200 mM.

7. The method of claim 2 wherein the reaction reagent comprises EDTA in a concentration of between about 0.5 and 3 mM.

8. The method of claim 2 wherein the reaction reagent comprises ferrous sulphate in a concentration of between about 0.5 and 2.0 mM.

9. The method of claim 2 wherein the reaction reagent comprises an excess of Fe^{2+}.

10. The method of claim 2 wherein the reaction reagent comprises 100 mM 2-deoxyglucose, 50 mM TBA, 1.4 mM EDTA, and 1 mM ferrous sulphate.

11. The method of claim 1 wherein the biological fluid is selected from the group consisting of: urine, plasma, bioreactor material and respiratory aspirate.

12. The method of claim 1 wherein one part biological fluid is mixed with between about 5 and 15 parts of the reaction reagent.

13. The method of claim 1 wherein the mixture of the biological fluid and

the reaction reagent is incubated at between 20 and 45 degrees Centigrade.

14. The method of claim 1 wherein the mixture is incubated for between about 5 and 30 minutes.

15. The method of claim 1 wherein the ferrous reaction mixture is absorbed to a solid support.

16. A method of identifying a mammalian subject in need of medical treatment comprising:

a. obtaining a sample of a biological fluid from said subject; and

b. assaying oxidant level in the biological fluid using a minimal method and a reagent containing ferrous ion.

17. The method of claim 16 wherein peroxide-equivalent level is assayed according to the method of claim 1.

18. The method of claim 16 wherein the biological fluid is selected from the group consisting of: urine, plasma, bioreactor fluid and respiratory aspirant.

19. The method of claim 16 wherein the subject is a human.

20. A ferrous reaction reagent suitable for use in assaying oxidative stress, said reaction reagent comprising 2-deoxyglucose, TBA, EDTA, and ferrous sulfate, and being substantially free of ascorbic acid.

21. The reaction reagent of claim 20 comprising 2-deoxyglucose in a concentration of between about 30 and 400 mM.

22. The reaction reagent of claim 20 comprising TBA in a concentration of between about 10 and 200 mM.

23. The reaction reagent of claim 20 comprising EDTA in a concentration of between about 0.5 and 3 mM.

24. The reaction reagent of claim 20 comprising ferrous sulphate in a concentration of between about 0.5 and 2.0 mM.

25. The reaction reagent of claim 20 comprising an excess of Fe^{2+}.

26. The reaction reagent of claim 20 comprising 100 mM 2-deoxyglucose, 50 mM TBA, 1.4 mM EDTA, and 1 mM ferrous sulphate.

27. The reaction reagent of claim 20 absorbed on a solid support.

28. A kit suitable for use in assaying oxidative stress from a biological fluid, said kit comprising:

a. a ferrous reaction reagent; and

b. a reference standard indicating oxidant levels.

29. The kit of claim 28 further comprising instructions for carrying out the method of claim 1.

30. The kit of claim 28 wherein the reaction reagent comprises 2-deoxyglucose, TBA, EDTA, and ferrous sulfate.

31. The kit of claim 30 wherein the reaction reagent is substantially free of ascorbic acid.

32. The kit of claim 28 wherein the reaction reagent is absorbed to a solid support.

33. The kit of claim 28 wherein the reaction reagent is the reaction reagent of claim 50.

34. The kit of claim 28 wherein the standard indicating oxidant levels is based on differences in color that correspond to different oxidant levels.